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STETINA BRUNDA GARRED & BRUCKER
75 ENTERPRISE, SUITE 250
ALISO VIEJO, CA 92656

EXAMINER	
MALLARI, PATRICIA C	
ART UNIT	PAPER NUMBER
3736	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/849,614	ZHOU ET AL.	
	Examiner	Art Unit	
	Patricia C. Mallari	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☒ Claim(s) *23 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 May 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

Claim 1 is objected to because of the following informalities:

On line 29 of claim 1, "RF" should be replaced with "radio frequency (RF)". Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of copending

Application No. 10/850315, herein referred to as Zhou '315. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of Zhou '315 only differ from those of the instant application in stating in the preamble of claim 1 that the biosensor system be powered by an electro-active polymer (EAP) generator. Other than this added limitation, the claims of Zhou '315 are identical to those of the instant application and therefore read on the claims of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites, "a sensor assembly" on line 2 of the claim, "the sensor" on line 6 of the claim, "an implantable on-chip transponder " on line 8 of the claim, "a sensor" on line 12 of the claim, and "the sensor" on lines 35-36 of the claim. The claim lacks sufficient antecedent basis for the limitation "the sensor" on line 6 of the claim, and it is wholly unclear whether "the sensor" is intended to refer to the "sensor assembly" on line 2, the "implantable on-chip transponder" on line 8, the "sensor" on line 12, or another sensor altogether. It is similarly unclear to which element "the sensor" on lines 35-36 refers. Since the claim states that the remote transponder

"transmits a scanner signal to the sensor" and receives "a data signal therefrom," and further describes the implantable on-chip transponder on line 8 of the claim is "configured to receive the scanner signal and transmit the data signal," it appears that "the sensor" on line 6 of the claim corresponds to the "implantable on-chip transponder" on line 8 of the claim. The claim also states both that the system provides "a substantially stable voltage to a sensor assembly" (lines 1-2) and that "the power receiver is configured to supply a substantially non-deviating sensor reference voltage to the sensor" (lines 34-36), such that the "sensor assembly" on line 2 of the claim and "the sensor" on lines 35-36 of the claim also appear to be one and the same. For the purposes of this examination only, the claim language has been interpreted such that the "sensor assembly" on line 2, the "implantable on-chip transponder" on line 8, and "the sensor" on lines 35-36 all refer to the same element, herein referred to as the "sensor assembly," and the "sensor" described online 12 of the claim is an element of the sensor assembly. Whether or not the applicants intended such an interpretation, the recited language should be amended to use a consistent designation for the same element and clearly distinct designations for different elements so as to clarify the meaning of the claim language.

Claim 5 contains similar language and therefore suffers from the same problems as claim 1.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 2-4 and 6-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Each of claims 2 and 6 recites the limitation, "a glucose sensor having an electrode assembly in fluid communication with the patient's blood". In teach case the blood, being a part of the human body, is non-statutory subject matter and cannot positively be claimed. To overcome this rejection, the applicants should amend the cited limitation to read "a glucose sensor having an electrode assembly adapted to be placed in fluid communication with the patient's blood".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,295,466 to Ishikawa et al. (herein referred to as Ishikawa '466). Ishikawa '466 teaches a bio-sensor system adapted to provide a substantially stable voltage to a sensor assembly that is implantable in a patient such that physiological parameters thereof may be accurately measured. The system comprises a remote transponder 302,1320 configured to transmit a scanner signal to a sensor and to receive a data signal therefrom and an implantable on-chip transponder in wireless communication with the remote transponder 302, 1320 and being configured to receive the scanner

signal and transmit the data signal (figs. 2A &B, 3, 6, 7, and 13:; col. 5, lines 11-18; col. 6, lines 47-51; col. 10, lines 53-61 of Ishikawa '466). The on-chip transponder includes a sensor 210, 212, 214, 708, 710, 712, 1315 configured to generate a sensor signal representative of the physiological parameter of the patient (figs. 2, 3, 6, 7, and 13; col. 5, lines 1-6; col. 6, lines 24-26; col. 10, lines 21-28 of Ishikawa '466). A power receiver is configured to receive the scanner signal from the remote transponder and to generate a power signal for powering the on chip transponder (col. 10, lines 4-20; col. 11, lines 6-43 of Ishikawa '466). An A/D assembly 436, 722, 1305 is connected to the power receiver and the sensor 210, 212, 214, 708, 710, 712, 1315 and is configured to receive the power signal and the sensor signal and to generate a digital signal in response thereto (figs. 2, 3, 6, 7, and 13; col. 5, lines 6-9; col. 10, lines 29-31 of Ishikawa '466), wherein it is apparent that the power signal received from the remote transponder powers all the elements of the on-chip transponder. A data processor 432, 716, 718 is connected to the A/D assembly and the power receiver and is configured to receive the power signal and the sensor signal and to generate a data signal in response thereto (figs. 2, 3, 6, and 7; col. 5, lines 1-5; col. 6, lines 41-47 of Ishikawa '466). An RF transmitter is connected to the power receiver and the data processor and is configured to modulate, amplify, and transmit the signal. The sensor signal may also be filtered (figs. 2, 3, 6, 7, and 13; col. 5, lines6-14; col. 6, lines 45-59; col. 10, lines 38-52 of Ishikawa '466). The power receiver is configured to supply a substantially non-deviating sensor reference voltage to the sensor for accurate measurement of the physiological parameter (col. 10, lines 14-20; col. 11, lines 32-44 of Ishikawa '466). The remote

transponder is configured to receive the data signal from the RF transmitter and to extract data representative of the physiological parameter (col. 10, line 53-col. 11, line 6 of Ishikawa '466).

The order of signal processing in Ishikawa '466, as far as digitizing, filtering, and amplifying the sensor signal, differs from that of claim 1 of the instant application. However, the applicants have not disclosed that the recited order of the A/D converter, filter, and amplifier solves any stated problem or is for any particular purpose. Moreover, it appears that the system would perform equally well with these three components in any order as long as the signal is digitized, filtered, and amplified prior to transmission to the remote transponder. Accordingly, the use of the particular order of these three components is deemed to be design consideration that fails to patentably distinguish over the prior art of Ishikawa '466.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa '466 et al., as applied to claim 1 above, and further in view of Us Patent No. 6,366,794 to Moussy et al. Ishikawa '466 teaches that the sensor electrode may be replaced with other suitable sensors such as one for sensing chemical parameters (col. 8, lines 43-46 of Ishikawa '466), but fails to describe such a sensor. However, Moussy teaches an implantable glucose sensor having an electrode assembly adapted for fluid communication with a patient's blood stream and being configured to measure a glucose level thereof (col. 3, lines 1-3; col. 6, lines 10-13 of Moussy), wherein the sensor reference voltage supplied to the electrode assembly is a substantially constant

value of about positive 0.7 volts (col. 6, lines 10-13 of Moussy). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the sensor of Moussy as the sensor in the system of Ishikawa '466, as modified, since Ishikawa '466 teaches using a glucose sensor, and Moussy discloses an appropriate such sensor.

Claims 5 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,579,498 to Eglise in view of US Patent No. 6,659,948 to Lebel et al., and further in view of Ishikawa '466 et al. Eglise teaches a bio-sensor system comprising a remote transponder 7 configured to transmit a scanner signal to an implantable sensor assembly 1 and to receive a data signal therefrom. The system also comprises the sensor assembly 1 in wireless communication with the remote transponder 7 and configured to receive the scanner signal and transmit the data signal (fig. 1; col. 2, lines 40-44; col. 2, lines 63-67; col. 5, lines 12-24 of Eglise). The sensor assembly 1 includes a sensor 4, 14 configured to generate a signal representative of a physiological parameter of the patient (col. 2, lines 41-53 of Eglise). A radio frequency (RF) receiver 40, 44, 45 receives the scanner signal from the remote transponder, processes and demodulates the scanner signal, and generates a message signal for controlling the sensor assembly 1. A power receiver 19, 42, 43 is configured to receive the scanner signal from the remote transponder 7 and to generate a power signal for powering the sensor assembly 1 (col. 5, lines 12-24 of Eglise). An analog-to-digital assembly/ processor 5, 17, 24, 25, 46 are connected to the power receiver19, 42, 43,

the RF receiver 40, 44, 45, and the sensor 4, 14, and are configured to receive the power signal, the sensor signal, and the message signal to generate a digital data signal in response thereto (figs. 1-3, 5; col. 2, lines 54-60 of Eglise). An RF transmitter 18, 50 is connected to the power receiver 19, 42, 43, the data processor 5, 17, 24, 25, 46 and the RF receiver 40, 44, 45 and is configured to receive the power signal, the digital data signal and the message signal and to modulate and transmit the data signal (fig. 5; col.4, lines 23-27; col. 5, lines 25-31 of Eglise). The power receiver 19, 42, 43 is configured to supply a substantially non-deviating sensor reference voltage to the sensor 4, 14 and sensor assembly 1 for accurate measurement of the physiological parameter (figs. 2, 3, & 5; col. 4, lines 46-54; col. 5, lines 12-18 of Eglise). The remote transponder 7 is configured to receive the data signal form the RF transmitter 18, 50 and to extract data representative of the physiological parameter (figs. 1, 5, & 6; col. 2, lines 61-67; col. 5, lines 46-50 of Eglise). Eglise fails to fully describe the RF receiving circuitry or the RF transmission circuitry

However, Lebel teaches an RF signal receiver in an implantable medical device that receives an RF signal from an RF transmitter and filters, amplifies, and modulates the signal to generate a message signal therefrom (col. 21, lines 18-31 of Lebel). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention use the RF receiver of Lebel as that of Eglise, since Eglise teaches receiving, processing, and demodulating an RF signal, and Lebel teaches an appropriate means of doing so, such that a more accurate message is derived the signal. Eglise, as modified by Lebel fails to fully describe the RF transmitter.

However, Ishikawa '466 describes RF transmission circuitry in an implantable medical device that receives a sensor data signal and filters, amplifies, and modulates the signal before transmission (figs. 7, 10, & 13; col. 6, lines 24-31 of Ishikawa '466). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the RF transmission circuitry of Ishikawa '466 with that of Eglise, as modified by Lebel, since Eglise, as modified teaches transmitting sensor data using RF transmission circuitry, and Ishikawa '466 describes appropriate such circuitry, such that a more accurate signal is transmitted.

Regarding claim 22, the description of the apparatus above inherently discloses a method of using such an apparatus.

Claim 6 is rejected under U.S.C. 103(a) as being unpatentable over Eglise, as modified by Lebel and Ishikawa '466, as applied to claims 5 and 22 above, and further in view of US Patent No. 6,366,794 to Moussy. Eglise, as modified, teaches a biosensor system comprising a glucose sensor, wherein such sensor may comprise any suitable mixture or compound (col. 3, lines 34-44 of Eglise). Moussy teaches an implantable glucose sensor having an electrode assembly adapted for fluid communication with a patient's blood stream and being configured to measure a glucose level thereof (col. 3, lines 1-3; col. 6, lines 10-13 of Moussy), wherein the sensor reference voltage supplied to the electrode assembly is a substantially constant value of about positive 0.7 volts (col. 6, lines 10-13 of Moussy). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the sensor

of Moussy as the sensor in the system of Eglise, as modified by Lebel and Ishikawa '466 since Eglise, as modified, teaches using a glucose sensor, and Moussy discloses an appropriate such sensor.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eglise in view of Lebel and Ishikawa '466, as applied to claims 5 and 22 above, and further in view of US Patent No. 6,546,268 to Ishikawa et al. (Ishikawa '268). Eglise, as modified, lacks a plurality or sensors, each being operative to sense a distinct parameter of the patient and generate a sensor signal representative thereof. However, Ishikawa teaches a glucose sensing system which may comprise a plurality of sensors, each capable of sensing a distinct parameter of the patient and to generate a sensor signal representative thereof, wherein such a system is advantageous because it allows general health status readings to be taken and chemical imbalances to be flagged (col. 11, lines 29-62 of Ishikawa '268). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate multiple sensors, as in the embodiment of Ishikawa '268 in the system of Eglise, in order to enable general health status readings to be taken and chemical imbalances to be flagged.

Regarding claim 10, the RF receiver is configured to coordinate requests for data form one of the sensors for subsequent transmission of the data to the remote responder, wherein the receipt of the scanner signal itself is a request for sensor data transmission (col. 4, lines 45-54 of Eglise).

Regarding claim 11, the data processor is configured to assign a preset identification code to the digital signal for identifying the sensor from which the sensor data originates (col. 7, lines 31-37; col. 8, lines 39-48 of Ishikawa '268).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eglise in view of Lebel and Ishikawa '466, as applied to claims 5 and 22 above. Eglise, as modified in the above rejection, teaches the remote transponder including an encoder 61 configured to receive and modulate a signal and generate an encoded signal in response thereto, a power transmitter 62 connected to the encoder and configured to receive and amplify the encoded signal and generate the scanner signal, and a transmitting antenna 60 connected to the power transmitter 62 and configured to receive the scanner signal therefrom for radio transmission to the on-chip transponder (col. 5, lines 33-51 of Eglise). Eglise, as modified is silent as to the origin of the transmitted signal. However, Ishikawa '466 teaches a remote transponder including an oscillator 1323 as the origin of a signal that is transmitted to an implantable sensor unit (col. 10, lines 53-63 of Ishikawa '466). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the oscillator of Ishikawa '466 as the source of the signal in the system of Eglise, as modified by Lebel and Ishikawa '466, since Eglise, as modified, teaches transmission of an interrogation signal, and Ishikawa '466 describes an appropriate generator of such a signal.

Allowable Subject Matter

Claims 3, 4, 7, 8, 12-17, 19, and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 4, 7, and 8 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 101, set forth in this Office action in addition to the rejections under 35 U.S.C. 112, 2nd paragraph.

Claim 4 would be allowable if the double patenting rejection, set forth in this Office action, were overcome in addition to the rejections under 35 U.S.C. 112, 2nd paragraph and under 35 U.S.C. 101.

Claims 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 3, 4, 7, 8, 23, and 24 the prior art of record fails to teach a bio-sensor system wherein the glucose sensor is a 2-pin glucose sensor further including a first precision resistor connected to the power receiver, a first operational amplifier connected to the first precision resistor, a voltmeter connected to the first operational amplifier and the first precision resistor, a second operational amplifier connected to the second terminal of the sensor, and a tunable second precision resistor connected to the

second operational amplifier, in combination with all of the other limitations of the claims, nor does the prior art teach a method of using such a system.

Eglise, as modified by Lebel, Ishikawa '466 and Moussy discloses the glucose sensor being a 2-pin glucose sensor with the electrode assembly having first and second terminals in fluid communication with the patient's blood (fig. 5 of Moussy). The sensor includes a first operational amplifier 402 and a voltmeter 438 is connected to the first operation amplifier 402 to apply a sensor reference voltage in the first terminal 408. A second operational amplifier 418 is connected to the second terminal 404 and to a tunable second precision resistor 428a to generate a sensor signal substantially proportional to the glucose level of the patient's blood (fig. 5; col. 5, line 46-col. 6, lines 44 of Moussy). Moussy lacks a first precision resistor connected to the power receiver and configured to receive the reference voltage therefrom for excitation of the glucose sensor, wherein the first operational amplifier is connected to the first precision resistor. In a 3-pin embodiment, the glucose sensor includes a first precision resistor 412, a first operational amplifier 402 connected to the first resistor 412, a second operational amplifier 422, but lacks a voltmeter associated with the first amplifier and resistor and fails to describe the second resistor as being tunable.

Regarding claims 12-14, the prior art of record fails to teach or fairly suggest a bio-sensor system wherein the A/D assembly includes a processor-filter connected to the bio-sensor to generate a filtered signal, an amplifier connected to the processor-filter to generate an amplified signal, a voltage comparator connected to the power receiver to generate a normalized signal, an A/D converter connected to the amplifier and the

voltage comparator to generate a converter signal, a covert logic device connected to the A/D converter to generate a logic signal, and a controller in two-way communication with the RF receiver and being connected to the covert logic device, the controller being configured to receive the message signal and the logic signal and to synchronize the A/D converter with the data processor for subsequent generation of the digital signal in response to the message signal and the logic signal, in combination with all of the other limitations of the claims.

Regarding claim 15, the prior art of record fails to teach or fairly suggest a bio-sensor system wherein the RF transmitter includes a data input filter connected to the data processor to generate a filtered data signal, a modulator connected to the power receiver, the RF receiver, and the data input filter to pulse code modulate the filtered data signal by varying amplitude thereof and generate a first and second modulated signal, a first transmitter amplifier connected to the modulator, a transmitter filter cooperating with the first transmitter amplifier, a second transmitter amplifier connected to the modulator and the first transmitter, a surface acoustic wave (SAW) filter connected to the second transmitter amplifier, and an RF transmitter antenna connected to the SAW filter, in combination with all of the other limitations of the claims.

Regarding claim 16, the prior art of record fails to teach or fairly suggest a bio-sensor system wherein the power receiver includes a syntonic oscillator connected to the RF receiver antenna to generate an AC voltage signal, a rectifier connected to the syntonic oscillator to generate a generally coarse DC voltage, a filter connected to the rectifier and having a capacitor configured to store energy from cycles of the generally

coarse DC voltage signal for release as a substantially smooth DC voltage signal, a first regulator connected to the filter to generate a first voltage signal to power the A/D assembly, the data processor and the RF transmitter, a second regulator connected to the filter, a sensor reference supply connected to the filter to generate a sensor reference voltage signal to power the sensor assembly, in combination with all of the other limitations of the claim.

Regarding claim 17, the prior art of record fails to teach or fairly suggest a bio-sensor system wherein the RF receiver further includes a surface acoustic wave (SAW) filter connected to the RF receiver antenna, a first RF amplifier connected to the SAW filter, a SAW delay connected to the first RF amplifier, a second RF amplifier connected to the SAW delay, a pulse generator connected in parallel to the SAW delay at the first and second RF amplifiers, and a detector-filter connected to the second RF amplifier, in combination with all of the other limitations of the claim.

Regarding claims 19 and 20 the prior art of record fails to teach or fairly suggest a bio-sensor system wherein the remote transponder further includes a surface acoustic wave (SAW) filter connected to the receiving antenna, a first RF amplifier connected to the SAW filter, a SAW delay connected to the first RF amplifier, a second RF amplifier connected to the SAW delay, a pulse generator connected in parallel to the SAW delay at the first and second RF amplifiers, and a detector-filter connected to the second RF amplifier, in combination with all of the other limitations of the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Application Publication 2003/0114769 to Loeb et al.

US Patent No. 6,447,448 to Ishikawa et al. US Patent No. 5,597,534 to Kaiser

US Patent No. 5,704,352 to Tremblay et al. US Patent No. 5,711,861 to Ward et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia C. Mallari whose telephone number is (571) 272-4729. The examiner can normally be reached on Monday-Friday 10:00 am-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia Mallari
Patent Examiner
Art Unit 3736

ROBERT L. NASSER
PRIMARY EXAMINER